Author Index

Addo-Yobo, F. Y. A. A., B9 Akiyama, T., 125 Al-Jarallah, A. M., 169 Asai, S., 185

Barreto, G. F., 147 Bloemendal, M., 63 Bruno, S. P., 147

Chisti, Y., B31 Cooper, D. A., 139 Cremades, L., 17

García-Ochoa, F., 47 Gianetto, A., B17 Gonzalez, M. G., 147

Haman, J., 1, 11, 69, 79 Hamdane, M., B25 Hatanaka, J., 185

Joshi, J. B., 111, B1

Kataoka, T., 55 Kenney, C. N., B9 Kiparissides, C., 175 Koehret, B., 17 Lee, A. K. K., 169 Ljungström, E. B., 139

McKay, G., 87 Maruta, K., 185 Masai, M., 157 Míšek, T., 1, 11, 69, 79 Mitsumori, S., 125 Moniuk, W., 27, 37 Moo-Young, M., B31

Nilavalagan, S., 97 Nishiyama, S., 157

Patil, T. A., B1 Penlidis, A., 175 Pibouleau, L., 17 Pohorecki, R., 27, 37 Ponnuswamy, S. R., 175

Querol, J., 47

Radhakrishna, H. C., 97 Raghav Rao, K. S. M. S., 111 Ravindran, M., 97 Riba, J. P., B25 Rod, B., 69 Romero, A., 47 Roy, D., B37 Ruggeri, B., B17

Sassi, G., B17
Saunders, R., 129
Sawant, S. B., B1
Saxena, S. C., 133
Shaikh, A. A., 191
Siddiqui, M. A. B., 169
Sikdar, S. K., B1
Singhal, N., B37
Slater, N. K. H., B9
Somsen, G., 63
Specchia, V., B17
Stangl, D., 79

Tanigawa, M., 157 Tsuruya, S., 157

Vadivel, R., 133 Varma, A., 191

Wilhelm, A. M., B25

Yoshida, H., 55



Subject Index

Absorption

plate efficiency in the process of absorption with chemical reaction — experiments and example calculations, 37

plate efficiency in the process of absorption with chemical reaction — general relations, 27

Activated carbon

fluidized bed adsorption of pollutants onto activated carbon, 87

Adsorption

fluidized bed adsorption of pollutants onto activated carbon, 87

Agitated systems

gas holdup behaviour in fermentation broths and other non-newtonian fluids in pneumatically agitated reactors, B31

liquid-phase mixing and power consumption in mechanically agitated solid-liquid contractors, 111

Alkali metals

solvent extraction of alkali metals by crown ethers, 157

Alkanols

enthalpic second virial coefficients and enthalpies of solution of alkanols as solutes in alkanols as solvents, 63

Amberlite XAD-2

measurement of heat of adsorption of amino acids on amberlite XAD-2 by an HPLC technique, B9

Amino acids

measurement of heat of adsorption of amino acids on amberlite XAD-2 by an HPLC technique, B9

Biokinetic parameters

numerical estimation of biokinetic parameters, B17

Bubble column reactors

on steady state multiplicity in bubble column reactors, 191

Catalysts

effect of geometric characteristics of commercial catalysts for steam reforming, 147

Channel stream

fluid mixing between channel stream and trough in which a density interface exists, 125

Concentration profiles

intraparticle ion-exchange mass transfer in ternary systems: theoretical analysis of concentration profiles, 55

Contaminated drop

terminal velocity of a contaminated drop at low Reynolds numbers, 185 Contractors

liquid-phase mixing and power consumption in mechanically agitated solid-liquid contractors, 111

Crown ethers

solvent extraction of alkali metals by crown ethers, 157

Degradation

modeling kinetics of 2,4-D degradation by two new *Pseudomonas* isolates, B37

Density interface

fluid mixing between channel stream and trough in which a density interface exists, 125

Discontinuous functions

fitting of discontinuous functions for chemical engineering applications, 17

Enzyme reactors

modelling of a fluidized bed immobilized enzyme reactor. Application to the hydrolysis of maltodextrins, B25

Ethers

kinetics of methyl tertiary butyl ether synthesis catalyzed by sulphuric acid, 169

Extractor performance

analysis of extractor performance. 1. Longitudinal mixing in a single-phase system, 1

analysis of extractor performance. II. Longitudinal mixing of the continuous liquid in the two-phase system, 11

analysis of extractor performance. III. Longitudinal mixing in the dispersed phase, 69

analysis of extractor performance. IV. Mass transfer, 79

Fermentation

gas holdup behaviour in fermentation broths and other non-newtonian fluids in pneumatically agitated reactors, B31

Finite-difference method

analysis of mixing characteristics of flow in a jet pump using a finite-difference method, 97

Flow

analysis of mixing characteristics of flow in a jet pump using a finite-difference method, 97

Fluidized bed

fluidized bed adsorption of pollutants onto activated carbon, 87

in-bed gas measurements in a commercial 16 MW fluidized bed combustor, 139 modelling of a fluidized bed immobilized enzyme

© Elsevier Sequoia/Printed in The Netherlands

reactor. Application to the hydrolysis of maltodextrins, B25

Fluidized beds

wall effects in gas-fluidized beds at incipient fluidization, 133

Gas holdup

gas holdup behaviour in fermentation broths and other non-newtonian fluids in pneumatically agitated reactors, B31

Geometric characteristics

effect of geometric characteristics of commercial catalysts for steam reforming, 147

Heats of adsorption

measurement of heat of adsorption of amino acids on amberlite XAD-2 by an HPLC technique, B9 HPLC

measurement of heat of adsorption of amino acids on amberlite XAD-2 by an HPLC technique, B9

Hydrolysis

modelling of a fluidized bed immobilized enzyme reactor. Application to the hydrolysis of maltodextrins, B25

Ion-exchange

intraparticle ion-exchange mass transfer in ternary systems: theoretical analysis of concentration profiles, 55

Jet pump

analysis of mixing characteristics of flow in a jet pump using a finite-difference method, 97

Kinetics

a comparison of kinetic data interpretation methods: thermal oxidation of *n*-octane in liquid phase, 47

kinetics of methyl tertiary butyl ether synthesis catalyzed by sulphuric acid, 169

modeling kinetics of 2,4-D degradation by two new Pseudomonas isolates, B37

Longitudinal mixing

analysis of extractor performance. III. Longitudinal mixing in the dispersed phase, 69

Maltodextrins

modelling of a fluidized bed immobilized enzyme reactor. Application to the hydrolysis of maltodextrins, B25

Mass transfer

analysis of extractor performance. IV. Mass transfer, 79

intraparticle ion-exchange mass transfer in ternary systems: theoretical analysis of concentration profiles, 55

mass transfer coefficients in two-phase aqueous extraction, B1

Methyl methacrylate

batch solution polymerization of methyl methacrylate: parameter estimation, 175

Mixing

analysis of extractor performance. 1. Longitudinal mixing in a single-phase system, 1

analysis of extractor performance. II. Longitudinal mixing of the continuous liquid in the two-phase system, 11

analysis of mixing characteristic of flow in a jet pump using a finite-difference method, 97

fluid mixing between channel stream and trough in which a density interface exists, 125

liquid-phase mixing and power consumption in mechanically agitated solid-liquid contractors, 111

Multiplicity

on steady state multiplicity in bubble column reactors, 191

n-Octane

a comparison of kinetic data interpretation methods: thermal oxidation of *n*-octane in liquid phase, 47

Non-newtonian fluids

gas holdup behaviour in fermentation broths and other non-newtonian fluids in pneumatically agitated reactors, B31

Plate efficiency

plate efficiency in the process of absorption with chemical reaction — experiments and example calculations, 37

plate efficiency in the process of absorption with chemical reaction — general relations, 27

Pollutants

fluidized bed adsorption of pollutants onto activated carbon, 87

Polymerization

batch solution polymerization of methyl methacrylate: parameter estimation, 175

Power consumption

liquid-phase mixing and power consumption in mechanically agitated solid-liquid contractors, 111

Pseudomonas

modeling kinetics of 2,4-D degradation by two new *Pseudomonas* isolates, B37

Reynolds numbers

terminal velocity of a contaminated drop at low Reynolds numbers, 185

Solvent extractions

solvent extraction of alkali metals by crown ethers, 157

Steam reforming

effect of geometric characteristics of commercial catalysts for steam reforming, 147

Sulphuric acid

kinetics of methyl tertiary butyl ether synthesis catalyzed by sulphuric acid, 169

Thermal oxidation

a comparison of kinetic data interpretation methods: thermal oxidation of *n*-octane in liquid phase, 47 Trough

fluid mixing between channel stream and trough in which a density interface exists, 125

Variance

on the variance of a sample from a binary mixture, 129

Velocity

terminal velocity of a contaminated drop at low

Reynolds numbers, 185

Virial coefficients

enthalpic second virial coefficients and enthalpies of solution of alkanols as solutes in alkanols as solvents, 63

Wall effects

wall effects in gas-fluidized beds at incipient fluidization, 133

